

CLAIMS

1. A peak power-controlling apparatus comprising:

a generating unit operable to generate at least one activating combination
5 available within a predetermined period of time to activate a plurality of devices, each
of the plurality of devices having an activating period and required electrical power, the
activating period including an operative period of time and an inoperative period of
time;

a calculating unit operable to calculate a total power consumption value for
10 each of the at least one activating combination, thereby providing at least one calculated
total power consumption value; and

a selecting unit operable to select, as a selection result, one of the at least one
activating combination based on the at least one calculated total power consumption
value.

15 2. A peak power-controlling apparatus as defined in claim 1, wherein said
selecting unit selects, as the selection result, an activating combination having a
minimum value among the at least one calculated total power consumption value.

3. A peak power-controlling apparatus as defined in claim 1, wherein the
predetermined period of time is substantially equal to shortest one of the operative
20 periods of time possessed by the plurality of devices.

4. A peak power-controlling apparatus as defined in claim 1, further
comprising:

a reception unit operable to receive activating requests addressed by the
plurality of devices,

25 wherein said generating unit generates the at least one activating combination
available within the predetermined period of time to activate the plurality of devices that
have addressed the activating requests.

5. A peak power-controlling apparatus as defined in claim 1, further comprising:

a determining unit operable to determine, as a determination result, one of a plurality of activating combinations included in the selection result, when said selecting
5 unit selects the plurality of activating combinations as the selection result.

6. A peak power-controlling apparatus as defined in claim 5, wherein said selecting unit compares the total power consumption value for each of the plurality of activating combinations with a predetermined permissible power value, thereby selecting, as the selection result, a plurality of activating combinations having the total
10 power consumption values equal to or smaller than the predetermined permissible power value.

7. A peak power-controlling apparatus as defined in claim 6, wherein said determining unit determines, as the determination result, one of the plurality of activating combinations included in the selection result, thereby providing a determined
15 activating combination, the determined activating combination having a largest number of the devices to be activated.

8. A peak power-controlling apparatus as defined in claim 6, wherein said determining unit determines, as the determination result, one of the plurality of activating combinations included in the selection result, thereby providing a determined
20 activating combination, the determined activating combination having a maximum value among the at least one calculated total power consumption value.

9. A peak power-controlling apparatus as defined in claim 6, wherein said determining unit determines, as the determination result, one of the plurality of activating combinations included in the selection result, thereby providing a determined
25 activating combination, the determined activating combination having any one of the devices to have been activated a smallest number of times during a predetermined period of time.

10. A peak power-controlling apparatus as defined in claim 6, wherein each of the plurality of devices has priority to be activated, and wherein said determining unit calculates a total score of the priority for each of the plurality of activating combinations included in the selection result, thereby determining, as the determination result, an activating combination having maximum one of the total scores of the priority.

11. A peak power-controlling method comprising:

generating at least one activating combination available within a predetermined period of time to activate a plurality of devices, each of the plurality of devices having an activating period and required electrical power, the activating period including an operative period of time and an inoperative period of time;

calculating a total power consumption value for each of the at least one activating combination, thereby providing at least one calculated total power consumption value; and

selecting, as a selection result, one of the at least one activating combination based on the calculated total power consumption value.

12. A peak power-controlling method as defined in claim 11, wherein said selecting, as the selection result, one of the at least one activating combination based on the at least one calculated total power consumption value comprises selecting, as the selection result, an activating combination having a minimum value among the at least one calculated total power consumption value.

13. A peak power-controlling method as defined in claim 11, further comprising:

receiving activating requests addressed by the plurality of devices,

wherein said generating the at least one activating combination available within the predetermined period of time to activate the plurality of devices comprises generating the at least one activating combination available within the predetermined period of time to activate the plurality of devices that have addressed the activating

requests.

14. A peak power-controlling method as defined in claim 11, further comprising:

determining, as a determination result, one of a plurality of activating
5 combinations included in the selection result, when said selecting, as the selection result,
one of the at least one activating combination based on the at least one calculated total
power consumption value comprises comparing the total power consumption value for
each of the at least one activating combination with a predetermined permissible power
value, to select, as the selection result, the plurality of activating combinations having
10 the total power consumption values equal to or smaller than the predetermined
permissible power value.

15. A peak power-controlling method as defined in claim 14, wherein said
determining, as the determination result, one of the plurality of activating combinations
included in the selection result comprises determining, as the determination result, one
15 of the plurality of activating combinations included in the selection result, thereby
providing a determined activating combination, the determined activating combination
being an selection from one of: the determined activating combination having a
largest number of the devices to be activated; the determined activating combination
having a maximum total power consumption value; and the determined activating
20 combination having any one of the devices to have been activated a smallest number of
times during a predetermined period of time.

16. A peak power-controlling method as defined in claim 14, wherein each of
said plurality of devices has priority to be activated, and wherein said determining, as
the determination result, one of the plurality of activating combinations included in the
25 selection result comprises calculating a total score of the priority for each of the
plurality of activating combinations included in the selection result, thereby determining,
as the determination result, an activating combination having maximum one of the total

scores of the priority.